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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/672,204

09/26/2003

Yigal Bejerano

Y. BEJARANO 2-48

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EXAMINER

GUYTON, PHILIP A

ART UNIT

PAPER NUMBER

2113

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
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3 MONTHS

04/18/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/18/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@hittgaines.com

Office Action Summary

Application No.

10/672,204

Applicant(s)

BEJERANO ET AL.

Examiner

Philip Guyton

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/23/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

2. Claims 7 and 14 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. Each of the claims only recites wherein said probe message identifier employ polynomial-time approximation algorithms to compute said set of probe messages, which is already recited in the parent claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by
“Optimizing probe selection for fault localization” by Brodie et al. (hereinafter Brodie).

With respect to claim 1, Brodie discloses a system for monitoring link delays and faults in an IP network (abstract – *“We investigate...find a nearly-optimal set”*), comprising:

a monitoring station identifier that computes a set of monitoring stations that covers links in at least a portion of said network (1. Introduction, paragraph 3 – *“To use probes, probing stations must first be selected at one or more locations in the network”*); and

a probe message identifier, coupled to said monitoring station identifier, that computes a set of probe messages to be transmitted by at least ones of said set of monitoring stations such that said delays and faults in specific links spanning said set of monitoring stations can be determined (1. Introduction, paragraph 4 – *“As a first step towards this goal...problems anywhere in the network”*).

With respect to claim 2, Brodie discloses wherein said set of monitoring stations is a minimal set (4.2 Results, paragraph 3 – *“Although it is sufficient...size of the probe set”* and figure 10).

With respect to claim 3, Brodie discloses wherein said set of probe messages is a minimal set (2.1 Problem Formulation, paragraph 1 – *“Finding the minimal set of probes...is the number of probes”*).

With respect to claim 4, Brodie discloses wherein said set of monitoring stations covers links in an entirety of said network (3.1 Determining the Initial Probe Set, paragraph 3 – *“A probe can be sent...and send a probe to every node”*).

With respect to claim 5, Brodie discloses wherein said probe messages have a selected one of:

identical message costs, and

message costs that are based on a number of hops to be made by said probe messages (3.1 Determining the Initial Probe Set, paragraph 3 – *“A probe can be sent to any...least-cost) path through the network”*).

With respect to claim 6, Brodie discloses a system for monitoring link delays and faults in an IP network (abstract – *“We investigate...find a nearly-optimal set”*), comprising:

a monitoring station identifier that computes a set of monitoring stations that covers links in at least a portion of said network (1. Introduction, paragraph 3 – *“To use probes, probing stations must first be selected at one or more locations in the network”*); and

a probe message identifier, coupled to said monitoring station identifier, that employs polynomial-time approximation (2.1 Problem formulation, paragraph 1 and 5. Related work, paragraph 3) to compute a set of probe messages to be transmitted by at least ones of said set of monitoring stations such that said delays and faults in specific links spanning said set of monitoring stations can be determined (1. Introduction, paragraph 4 – *“As a first step towards this goal...problems anywhere in the network”*).

With respect to claim 7, Bordie discloses wherein said probe message identifier employs polynomial-time approximation algorithms to compute said set of probe messages (2.1 Problem formulation, paragraph 1 and 5. Related work, paragraph 3).

Claims 8-12 are a method as performed by the system of claims 1-5, and are rejected under the same rationale.

Claims 13 and 14 are a method as performed by the system of claims 6 and 7, and are rejected under the same rationale.

With respect to claim 15, Brodie discloses a system for monitoring link delays and faults in an IP network (abstract – *“We investigate...find a nearly-optimal set”*), comprising:

a monitoring station identifier that employs polynomial-time approximation algorithms (2.1 Problem formulation, paragraph 1, 4.2 Results, (i) Probe Set Size, (ii) Number of Probe Stations, and 5. Related work, paragraph 3) to compute a set of monitoring stations that covers links in at least a portion of said network (1. Introduction, paragraph 3 – *“To use probes, probing stations must first be selected at one or more locations in the network”*); and

a probe message identifier, coupled to said monitoring station identifier, that employs polynomial-time approximation (2.1 Problem formulation, paragraph 1 and 5. Related work, paragraph 3) to compute a set of probe messages to be transmitted by at least ones of said set of monitoring stations such that said delays and faults in specific links spanning said set of monitoring stations can be determined (1. Introduction, paragraph 4 – *“As a first step towards this goal...problems anywhere in the network”*).

With respect to claim 16, Brodie discloses wherein said set of monitoring stations covers links in an entirety of said network (3.1 Determining the Initial Probe Set, paragraph 3 – *"A probe can be sent...and send a probe to every node"*).

With respect to claim 17, Brodie discloses wherein said probe messages have a selected one of:

identical message costs, and

message costs that are based on a number of hops to be made by said probe messages (3.1 Determining the Initial Probe Set, paragraph 3 – *"A probe can be sent to any...least-cost) path through the network"*).

With respect to claim 18, Brodie discloses wherein said minimal set of monitoring stations guarantees delay and fault monitoring of all active links in a presence of at most K-1 failures (3.2 Determining the Diagnostic Power of a Set of Probes, paragraphs 2-3 – *"Since each column is unique...number of probes needed"*).

With respect to claim 19, Brodie discloses wherein said minimal set of monitoring stations always covers said links in said at least said portion of said network (3.1 Determining the Initial Probe Set, paragraph 3 – *"A probe can be sent...a probe to every node"*).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Guyton whose telephone number is (571) 272-3807. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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